



Seed Orchard Seed

In some cases, the restrictions on seed movement that are recommended in this document may not apply to seed orchard seed. Many seed orchards are supported by a series of field tests. These tests evaluate the ability of trees in the seed orchard to produce offspring with good growth and survival for a certain planting area. In some cases, the trees in these seed orchards may have been selected to produce offspring that perform well over a large area. In these cases, it may be possible to expand the deployment of this seed beyond what we recommend.

Prior to purchasing and using orchard seed, the purchaser may want to ask the following questions and compare the answers to the guidelines for general seed transfer:

- 1) What is the origin (*i.e.* geographic location and elevation) of the parent trees in the orchard in relation to the location and elevation of the intended planting site?
- 2) Are there genetic tests of the seed-producing parents or field tests demonstrating the performance and adaptability of the orchard seed?
- 3) What geographic area do the tests encompass? How do the test sites relate to the location of the planting site? For how many years have the trees been tested?
- 4) What are the results of those tests? How much better or worse than average were the seed parents based on the test results?
- 5) How many seed parents are represented in the seed/planting mix?
- 6) What is the risk of pollen contamination in the seed orchard? Pollen drifting into the orchard blocks from outside stands or geographically different orchard blocks may reduce gain or increase the risk of maladaptation.
- 7) What percentage of the trees in the orchard produce seed and pollen? Better adaptation is obtained when there are a number of parents, both male and female, represented in the seed lot.